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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 08/777,958
Filing Date: December 24, 1996
Appellant(s): HAMILTON ET AL.

Mr. Charles Hieken
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 16 September 2005 appealing from the Office action mailed 8 April 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Appeal No. 94-2403 in the parent application 07/871,926

Appeal No. 2000-1557 in this application

These related appeals are disclosed by appellant in section (ii) of the appeal brief.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1, 3 through 6 and 8 through 10.

Claims 1, 3 and 8 through 10 been amended subsequent to the final rejection.

Claims 2 and 7 have been canceled.

Appellant indicates in the corresponding section of the Appeal Brief that "Claims 1, 3-6 and 8-10 being appealed stand rejected under 35 U.S.C. §112, first paragraph as non enabling and as indefinite". The correct statement is: Claims 1, 3-6 and 8-10 being appealed stand rejected under 35 U.S.C. §112, first paragraph as non enabling and 35 U.S.C. §112, second paragraph as indefinite.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The rejection of Claims 1 and 4 through 6 under 35 USC §102(b) as anticipated by Ziffer (March) have been withdrawn in response to appellant's recent amendment incorporating the limitations of cancelled Claim 2 into Claim 1.

Examiner does not agree with appellant's additional statements in this section beyond the grounds of rejection.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Ziffer, A., Family Affair, May 1991, Car Audio and Electronics, pp. 38-42, herein referred to as Ziffer (May).

Ziffer, A., Pursuit of Perfection, March 1991, Car Audio and Electronics, pp. 46-50, herein referred to as Ziffer (March).

"BAZOOKA Bass Tubes" advertisement, January 1990, Car Audio and Electronics, p. 41, herein referred to as Bazooka.

Justin, Justin's Volvo, Cardomain.com,
<http://www.cardomain.com/memberpage/425664/2>, herein referred to as Justin.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3 through 6 and 8 through 10 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an audio speaker system wherein the speaker is disposed in the rearward section of the trunk, does not reasonably provide enablement for the speaker occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said one speaker mounted in the rear deck. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Specifically, the invention of Claim 1 requires a low frequency speaker of sufficiently small size and regular shape to occupy negligible space by fitting into a rear trunk

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corner as depicted in appellant's Figures 1, 2 and 6. This requires a low frequency speaker the approximate size and shape of a standard brick. At the time of the invention, low frequency speakers of this size and shape were not known to those of ordinary skill in the art. Evidence of this is found in Ziffer (March). In the paragraph spanning the third and fourth columns of page 48, a professional car audio installer is quoted indicating that the Bazooka bass tubes were the most compact bass speakers available at the time of the invention. In the appeal brief filed on 30 October 2003, appellant states: "it is impossible to put these large Bazooka bass speakers in the rear trunk corner at the rear of the vehicle" (page 12, last paragraph). As such, appellant admits that the most compact bass speaker known to one of ordinary skill in the art at the time of the invention could not be employed as claimed. Appellant's disclosure provides no information on how to produce a low frequency speaker of the size and shape necessary to be employed as claimed. Claims 3 through 6 and 8 through 10 depend from Claim 1. As such, the claims incorporate the same unenabled matter and are not enabled. In addition, Claims 3 and 8 require rear corner mounting and so claim a compactness of the speaker beyond what is required by Claim 1. Therefore the failure of enablement is greater for these claims. In addition, examiner presents below prior art rejections for Claim 1 and claims depending therefrom based on the interpretation that either (1) the invention comprehends a vehicle with sufficient space between the interior trunk trim and the vehicle outer shell to contain a bass speaker or (2) appellant's disclosure admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting.

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Claims 1, 3 through 6 and 8 through 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which appellant regards as the invention.

Claim 1 claims a speaker system “wherein said at least one speaker is disposed in a rearward section of the trunk occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said at least one speaker mounted in said rear deck.” Appellant states in the disclosure that the “reference to negligible useful trunk volume means that the [speaker] enclosure portion in the useful trunk volume is a small percentage of the useful trunk volume” (page 3, lines 8-10). As is clear from appellant’s Fig. 6, the amount of useful trunk volume occupied by the speaker depends on the size and shape of the vehicle trunk. Appellant has depicted a large trunk with significant volume between the vehicle shell and the cosmetic trim resulting in only a small part of the speaker occupying useful volume. In a vehicle with a smaller trunk and less volume between the vehicle shell and the cosmetic trim, a larger portion of the speaker would occupy useful volume. Appellant claims the invention as a speaker system. As such, the limitations of the claimed invention cannot be made clear by reference to a vehicle of uncertain configuration. The claim could read on a particular speaker system when it is installed in one vehicle, but not on the same speaker system installed in a different vehicle. Similarly, whether a speaker disposed in a rearward section of the trunk would “cause a smaller decrease in calculated trunk volume than would occur with said one speaker mounted in said rear deck” depends on the configuration of the vehicle. Since the configuration of the vehicle is not defined beyond a general recitation of vehicle elements (i.e., passenger compartment, spare tire compartment, trunk, trunk floor, dividing portion and rear deck), the claim is indefinite. In

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addition, examiner presents below prior art rejections for Claim 1 and claims depending therefrom based on the interpretation that either (1) the invention comprehends a vehicle with sufficient space between the interior trunk trim and the vehicle outer shell to contain a bass speaker or (2) appellant's disclosure admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. This second interpretation is further supported by the fact that the indefinite claims do not limit the rear deck mounting orientation and position of the speaker(s) that serve as a basis for comparison for the claimed configuration. As such, the prior art rear corner mounting configuration need only be more space efficient than the least space efficient possible rear shelf mounting of the same speaker(s) (e.g., extending rearward along the center line of the car) to meet the claim.

Claims 8 through 10 are indefinite due to dependence from Claim 7.

Claims 1, 3 and 4 are rejected under 35 U.S.C. 102(a) as being anticipated by Ziffer (May) (Car Audio and Electronics, May 1991).

Claim 1 claims an audio speaker system for a vehicle. Ziffer (May) discloses a "full-blown sound system" (page 39, 2nd paragraph) including tweeters and woofers (i.e., an audio speaker system) (page 41, photos) for a white 1990 Mazda Protégé (i.e., a vehicle) (page 39, 2nd paragraph). As is visible in the lower photograph on page 40, the vehicle disclosed has a passenger compartment (visible through the rear window seen between the raised trunk lid and the rear trunk lip), a spare tire compartment (visible around the spare tire), a trunk (page 40, photo caption) with a trunk floor (page 40, 1st column, 1st full paragraph), a dividing portion

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(visible in a closed position in upper photograph on page 40 and in an open position in the lower photograph on page 40) and a rear deck (page 42, lower photograph and associated caption) with the dividing portion and rear deck separating the trunk from the passenger compartment. Ziffer (May) further discloses the woofers (i.e., at least one low frequency speaker) disposed within the trunk of the vehicle (page 40, paragraph spanning 3rd and 4th columns and 2nd complete paragraph in 4th column) at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle (top photograph on page 41 shows the portion of the trunk extending to the front of the vehicle to the right of the woofer grille). The woofers disclosed by Ziffer (May) are clear of the rear deck (lower photograph on page 41 shows clearance between woofers and rear deck), above the trunk floor (top photograph on page 41 shows the disposition of the woofer above the trunk floor) and outside the spare tire compartment (lower photograph on page 40 shows woofers outside the spare tire compartment). Ziffer (May) further discloses woofers disposed in a rearward section of the trunk (top photograph on page 41 shows the portion of the trunk extending to the front of the vehicle to the right of the woofer grille) and flush mounted in the trunk walls (i.e., occupying no useful trunk volume) (page 40, lower photograph) and hence causing a smaller decrease in calculated trunk volume than would occur with the speakers mounted in the rear deck.

Regarding Claim 3, Ziffer (May) further discloses woofers disposed in a rear trunk corners (page 40, both photographs).

Regarding Claim 4, Ziffer (May) further discloses creation of woofer enclosures with fiberglass back walls built to conform to the shape of the car (page 40, paragraph spanning 3rd and 4th columns).

Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziffer (May) in view of Bazooka.

Claim 1 claims an audio speaker system for a vehicle. Ziffer (May) discloses a “full-blown sound system” (page 39, 2nd paragraph) including tweeters and woofers (i.e., an audio speaker system) (page 41, photos) for a white 1990 Mazda Protégé (i.e., a vehicle) (page 39, 2nd paragraph). As is visible in the lower photograph on page 40, the vehicle disclosed has a passenger compartment (visible through the rear window seen between the raised trunk lid and the rear trunk lip), a spare tire compartment (visible around the spare tire), a trunk (page 40, photo caption) with a trunk floor (page 40, 1st column, 1st full paragraph), a dividing portion (visible in a closed position in upper photograph on page 40 and in an open position in the lower photograph on page 40) and a rear deck (page 42, lower photograph and associated caption) with the dividing portion and rear deck separating the trunk from the passenger compartment. Ziffer (May) further discloses the woofers (i.e., at least one low frequency speaker) disposed within the trunk of the vehicle (page 40, paragraph spanning 3rd and 4th columns and 2nd complete paragraph in 4th column) at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle (top photograph on page 41 shows the portion of the trunk extending to the front of the vehicle to the right of the woofer grille). The woofers disclosed by Ziffer (May) are clear of the rear deck (lower photograph on page 41 shows clearance between woofers and rear deck), above the trunk floor (top photograph on page 41 shows the disposition of the woofer above the trunk floor) and outside the spare tire compartment (lower photograph on page 40 shows woofers outside the spare tire compartment).

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Therefore Ziffer (May) is shown to anticipate all elements of Claim 1 except the at least one speaker being disposed in a rearward section of the trunk occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said [at least] one speaker mounted in said rear deck. Bazooka discloses a woofer configuration (third example) for use in a vehicle similar to the one disclosed in Ziffer (May) in which the woofers are disposed adjacent to and parallel to the sides of the trunk and “directed to the rearmost corner of the trunk”. Further, it is clear from the first and second example of Bazooka that the woofer is intended to be disposed “3-4 inches from the wall the woofer is facing” (i.e., the rear of the trunk). As such, Bazooka discloses the woofer disposed in a rearward section of trunk. The disposition adjacent and parallel to the side of the trunk and 3-4 inches the rear of the trunk places the woofer in a rear trunk corner of the vehicle. It would have been obvious to one skilled in the art at the time of the invention to apply the woofer configuration taught by Bazooka to the vehicle sound system taught by Ziffer (May) for the purpose of reducing installation time, effort and cost by utilizing a ready-made subwoofer instead of fabricating one from raw materials. Appellant states in the disclosure that “placement of the speaker enclosure is preferably in a corner of the vehicle trunk occupying negligible useful trunk volume” (page 2, lines 17-20) and “because of the way auto manufacturers calculate useful trunk volume, the enclosure in the corner of the trunk results in a smaller decrease in calculated useful trunk volume than do speakers mounted in the rear deck” (page 2, lines 27-31). As such, appellant admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. As such, the combination of Ziffer (May) and Bazooka makes obvious all elements of Claim 1.

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Regarding Claim 3, as shown above apropos of Claim 1, the combination of Ziffer (May) and Bazooka makes obvious the speaker located in a rear trunk corner at the rear of the vehicle.

Regarding Claim 4, Bazooka further discloses the woofers mounted in enclosures (top and bottom illustrations).

Claims 1, 3 through 6 and 8 through 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziffer (March) in view of Bazooka. These rejections rely on the embodiment depicted in the top photograph on page 48 in Ziffer (March) showing the bass tubes placed near the trunk front wall.

Claim 1 claims an audio speaker system for a vehicle. Ziffer (March) discloses bass tubes (i.e., an audio speaker system) (page 48, top photo) for a Volvo 740 Turbo (i.e., a vehicle) (page 47, 1st paragraph). As is visible in the photograph on page 47, the vehicle disclosed has a passenger compartment (visible through the side windows), a spare tire compartment (page 48, top photo shows gap in carpet between spare tire compartment lid and trunk floor), a trunk (page 48, top photo caption) with a trunk floor (page 48, top photo), a trunk front wall (i.e., dividing portion) (page 48, last paragraph) and a rear shelf (i.e., rear deck) (while not clearly depicted or described in Ziffer (March), evidence of the inherency of a rear shelf in a 1990 Volvo 740 Turbo sedan is found in Justin: "There was no factory rear shelf speaker in this car, so I had to saw out holes in the back"), with the dividing portion and rear shelf separating the trunk from the passenger compartment. Ziffer (March) further discloses the bass tubes (i.e., at least one low frequency speaker) disposed within the trunk of the vehicle (page 48, top photograph). The bass tubes disclosed by Ziffer (March) are above the trunk floor and outside the spare tire compartment (top

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photograph on page 48). Therefore Ziffer (March) is shown to anticipate all elements of Claim 1 except the speaker(s) disposed at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle such that the speaker(s) is/are clear of the rear deck. Bazooka discloses a woofer configuration (third example) for use in a vehicle similar to the one disclosed in Ziffer (March) in which the woofers are disposed adjacent to and parallel to the sides of the trunk and “directed to the rearmost corner of the trunk”. Further, it is clear from the first and second example of Bazooka that the woofer is intended to be disposed “3-4 inches from the wall the woofer is facing” (i.e., the rear of the trunk). As such, Bazooka discloses the woofer disposed in a rearward section of the trunk. The disposition adjacent and parallel to the side of the trunk and 3-4 inches the rear of the trunk places the woofer in a rear trunk corner of the vehicle (i.e., at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle such that the speaker(s) is/are clear of the rear deck). The Bazooka reference is produced by the manufacturer of the bass tubes disclosed in Ziffer (March) and represents rear corner mounting as the preferred configuration for a sedan. It would have been obvious to one skilled in the art at the time of the invention to apply the woofer configuration taught by Bazooka to the vehicle sound system taught by Ziffer (March) for the purpose of ensuring proper function of the bass tube by installing according to the manufacturer’s recommendation.

Further, as shown above, the combination makes obvious rear corner mounting of the bass tubes. Appellant states in the disclosure that “placement of the speaker enclosure is preferably in a corner of the vehicle trunk occupying negligible useful trunk volume” (page-2, lines 17-20) and “because of the way auto manufacturers calculate useful trunk volume, the enclosure in the

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corner of the trunk results in a smaller decrease in calculated useful trunk volume than do speakers mounted in the rear deck” (page 2, lines 27-31). As such, appellant admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 1.

Regarding Claim 3, as stated above apropos of Claim 1, the combination of Ziffer (March) and Bazooka makes obvious all elements of that claim. Further, as shown above apropos of Claim 1, the combination makes obvious rear corner mounting of the bass tubes. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 3.

Regarding Claim 4, Bazooka further discloses the woofers mounted in enclosures (top and bottom illustrations).

Regarding Claim 5, appellant discloses that the front seat frequency response hole and rear seat frequency response peak are the result of using deck-mounted speakers (page 3, lines 13-25). As shown below apropos of Claim 6, the vehicle disclosed in Ziffer (March) does not use deck mounted speakers and does not have rear deck speaker holes. Therefore, it is inherently characterized by freedom from the undesirable front seat frequency response hole and rear seat frequency response peak. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 5.

Regarding Claim 6, the rear shelf (i.e., rear deck) of the 1990 Volvo 740 Turbo sedan has no speaker holes in the rear deck. Evidence of the rear shelf without speaker holes in a 1990 Volvo 740 Turbo sedan is found in Justin: “There was no factory rear shelf speaker in this car, so I had to saw out holes in the back.” Ziffer (March) further discloses that a design consideration was to

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not cut holes in the vehicle (page 48, paragraph spanning 3rd and 4th columns) and that the vehicle was purchased without a factory sound system (paragraph spanning pages 47 and 48).

The Ziffer article is directed to a complete description of the vehicle sound system and makes no mention of rear shelf speakers or rear shelf speaker holes. Therefore, it is clear that the rear deck in the vehicle disclosed in Ziffer (March) is free of speaker holes. As such, the combination of Ziffer (March) and Bazooka is shown to make obvious all elements of Claim 7 except the at least one speaker being disposed in a rearward section of the trunk occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said [at least] one speaker mounted in said rear deck. As shown above apropos of Claim 1, the combination makes obvious rear corner mounting of the bass tubes. Appellant states in the disclosure that "placement of the speaker enclosure is preferably in a corner of the vehicle trunk occupying negligible useful trunk volume" (page 2, lines 17-20) and "because of the way auto manufacturers calculate useful trunk volume, the enclosure in the corner of the trunk results in a smaller decrease in calculated useful trunk volume than do speakers mounted in the rear deck" (page 2, lines 27-31). As such, appellant admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 6.

Regarding Claim 8, as stated above apropos of Claim 7, the combination of Ziffer (March) and Bazooka makes obvious all elements of that claim. Further, as shown above apropos of Claim 1, the combination makes obvious rear corner mounting of the bass tubes. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 8.

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Regarding Claim 9, Bazooka further discloses the woofers mounted in enclosures (top and bottom illustrations).

Regarding Claim 10, appellant discloses that the front seat frequency response hole and rear seat frequency response peak are the result of using deck-mounted speakers (page 3, lines 13-25). As shown above apropos of Claim 6, the vehicle disclosed in Ziffer (March) does not use deck mounted speakers or have rear deck speaker holes. Therefore, it is inherently characterized by freedom from the undesirable front seat frequency response hole and rear seat frequency response peak. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 10.

(10) Response to Argument

In part I of appellant's Argument, appellant makes arguments concerning the rejection of all pending claims under 35 USC 112, first paragraph for lack of enablement. The rejection is based on the following evidence:

In Ziffer (March) in the paragraph spanning the third and fourth columns of page 48, a professional car audio installer is quoted indicating that the Bazooka bass tubes were the most compact bass speakers available at the time of the invention:

“One thing that made this installation kind of tricky was that [vehicle owner] Will didn't want it to take up any space,” said Garst. Bass enclosures are usually the most voracious consumers of space. “We got around that by using Bazooka Bass Tubes,” Garst explained. “They're designed to load into a corner and to work in the trunk of a car without having to cut holes in the vehicle.”

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In the paragraph spanning the first and second columns of page 48, Garst is identified as the owner of Custom Alarm, Radio & Sunroof of Old Greenwich, Connecticut, a shop specializing in car audio installation. As such, in the absence of any conflicting evidence, this statement is given weight and constitutes the preponderance of evidence on the record concerning this subject.

In the appeal brief filed on 30 October 2003, appellant states: "it is impossible to put these large Bazooka bass speakers in the rear trunk corner at the rear of the vehicle" (page 12, last paragraph).

If the Bazooka Bass Tube was the epitome of compactness in bass speakers known to one skilled in the art at the time of the invention, as indicated by the Garst statement and these same Bazooka Bass Tubes were too large to be employed as claimed, as is admitted by appellant, then it follows logically that one skilled in the art at the time of the invention would not have been enabled by appellant's disclosure to practice appellant's invention.

Appellant's first argument is that this rejection was first made in the Office action mailed on 23 August 2004. This argument is unpersuasive for several reasons. First, the introduction of this ground of rejection was made in a non-final Office action, after appellant filed an appeal brief on 30 October 2003. As such, the new ground of rejection is perfectly proper. Second, the new ground of rejection has its factual basis in part in admissions made by appellant in that appeal brief. As such, the rejections could not have been made sooner. Finally, the mere fact that a new ground of rejection was introduced at an intermediate point in the prosecution is not evidence of invalidity of that ground.

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Appellant's second argument is that the disclosure does enable the claimed invention by providing the following guidance to the practitioner:

"As shown in the rear view of FIG. 2 placement of the speaker enclosure 9 is preferably in a corner of the vehicle trunk 7 (here the left corner) occupying negligible useful trunk volume." (Page 2, lines 17-20);

"While the speaker is shown mounted in an enclosure according to the preferred embodiment, the speaker could be mounted in the trunk without a separate enclosure." (Page 3, lines 26-28); and

"the trunk as a whole acts as a natural low-pass filter." (Page 2, line 26-27).

All of these statements assume a sufficiently small speaker. There is nothing in the disclosure that provides any guidance on how to make such a speaker. As such, appellant has not met the burden of refuting the evidence presented.

In part II of appellant's Argument, appellant makes arguments concerning the rejection of all pending claims under 35 USC 112, second paragraph for indefiniteness. The indefiniteness stems from the recitation in Claim 1, from which all other claims depend, of:

"wherein said at least one speaker is disposed in a rearward section of the trunk occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said at least one speaker mounted in said rear deck."

The following factors contribute to the indefiniteness of the claim: First, the amount of useful trunk volume the speaker occupies depends on the size and shape of the trunk and, as such, is

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dependant on the particular vehicle used. Since a particular speaker system could meet the claim when installed in one vehicle but not when installed in a different vehicle, the claim is indefinite. Second, the claim doesn't clearly specify the configuration of "said at least one speaker mounted in said rear deck", which is a vital limitation in the claim. There are many possible rear deck mounting configurations for speakers, so it is unclear what this limitation means.

Appellant makes irrelevant arguments directed to recitations of "at least one" speaker.

Indefiniteness rejections based on this recitation were withdrawn after appellant's latest amendment.

Appellant makes irrelevant arguments directed to recitations of "trunk rear". There are no indefiniteness rejections based on this recitation.

Appellant makes arguments based on a prior BPAI decision for the parent application of the present application that stated that "examiner has not given any reason why the objected to phrase [i.e., negligible useful volume] is considered to be vague and indefinite". This decision was based on rejections and statements made prior to 27 November 1996. The current rejections are specific as to the reasons the claims are considered indefinite.

In part III of appellant's Argument, appellant makes arguments concerning the rejection of Claims 1, 3 and 4 under 35 USC 102 as anticipated by Ziffer (May). These rejections are based the car audio system installation described in a magazine article. The photographs on page 40 show the placement of components in the vehicle trunk. The woofers that correspond to the "at least one low frequency speaker" claimed are visible as circular outlines on the trunk side walls. It is clear from the photographs that these speakers are "disposed within the trunk", "clear of the

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rear deck”, “above [the] trunk floor” and “outside [the] spare tire compartment” as claimed.

Further, the photographs show the rearmost edges of these speakers very close to the trunk rear and the photograph at the top of page 41 shows significant spacing between the frontmost edge of the speaker and the front wall of the trunk, shown at the right of the photograph. As such, the reference discloses the speakers disposed “at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of [the] vehicle” as claimed. In addition, the reference discloses that the speakers are entirely within the trunk walls and, as such, occupy “negligible useful trunk volume” and cause “a smaller decrease in trunk volume than would occur with [the speakers] mounted in [the] rear deck” as claimed.

Appellant’s sole argument regarding these rejections is based on the mistaken interpretation that the reference discloses the speakers occupying useful trunk volume. It is clear from the photographs that the speakers are located within the trunk walls. The text states in the second complete paragraph of the third column on page 40 that “A subwoofer box has been positioned in each of the trunk’s side walls” (emphasis added). While it may be true that the practitioner built out the trunk walls in order to accommodate the speakers, appellant’s own disclosure relies on there being significant space between the vehicle outer skin and the trunk cosmetic trim to dispose the speaker(s) in “negligible useful trunk volume”. It can make no difference to the patentability of the claimed speaker system whether the vehicle came from the factory with such a space between the outer skin and the cosmetic trim or that space exists due to subsequent modification by a practitioner.

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In part IV of appellant's Argument, appellant makes arguments concerning the rejection of Claims 1, 4 and 6 under 35 USC 102 as anticipated by Ziffer (March). These rejections were withdrawn in response to appellant's recent amendments.

In part V of appellant's Argument, appellant makes arguments concerning the rejection of Claims 3 and 4 under 35 USC 103 as unpatentable over Ziffer (May) in view of Bazooka. While examiner maintains that the primary reference anticipates all elements of Claims 1, 3 and 4, the Bazooka reference also provides teaching and motivation for the additional limitations claimed in dependant Claims 3 and 4. The Bazooka reference is an advertisement depicted the manufacturer's recommendation for disposition of Bazooka tubes in vehicles of various configurations, including a small sedan (bottom picture). The picture shows the Bazooka woofers disposed against the trunk side walls at the rear of the trunk. The advertisement also states in the second paragraph that "the woofers should be pointed into the corner formed by the side wall, rear wall and floor of the vehicle 3-4 inches from the wall the woofer is facing" and in the third paragraph that "Bazooka woofers can be directed into the rearmost corner of the trunk". As such, trunk rear corner mounting is clearly indicated. Motivation to replace the woofers disclosed in Ziffer (May) with the Bazooka tubes comes from the relative ease of installing the Bazooka tubes which include ready-made enclosures. This maintains the requirements of Claim 1 as to the speaker(s) being disposed "disposed within the trunk of the vehicle at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of said vehicle such that said at least one speaker is clear of the rear deck above said trunk floor and outside said spare tire compartment". Further it is clear from the bottom illustration in

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the advertisement that the rear corner mounting causes “a smaller decrease in calculated trunk volume than would occur with said at least one speaker mounted in said rear deck”. In addition, appellant states in the disclosure that “placement of the speaker enclosure is preferably in a corner of the vehicle trunk occupying negligible useful trunk volume” (page 2, lines 17-20) and “because of the way auto manufacturers calculate useful trunk volume, the enclosure in the corner of the trunk results in a smaller decrease in calculated useful trunk volume than do speakers mounted in the rear deck” (page 2, lines 27-31). As such, appellant admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting.

Examiner sees no substantial arguments in this section of the appeal brief.

In part VI of appellant’s Argument, appellant makes arguments concerning the rejection of all pending claims under 35 USC 103 as unpatentable over Ziffer (March) in view of Bazooka. The primary reference discloses a car audio installation that includes Bazooka Bass Tube woofers disposed in a manner not recommended by their manufacturer. Examiner has shown in the claim rejection above that disposing these woofers in accordance with the manufacturer’s instructions as disclosed in the Bazooka reference results in a configuration that meets all limitations as to the disposition of the speakers in Claims 1, 3, 4, 8 and 9. Examiner has further shown, using the Justin reference as evidence, that the vehicle disclosed in Ziffer (March) has no holes in the rear deck as specified in Claim 6. Examiner has further shown, using appellant’s admissions that the frequency response claimed is inherent in the combination of Ziffer (March) and Bazooka.

Examiner sees no substantial arguments in this section of the appeal brief.

In part VII of appellant's Argument, appellant makes arguments concerning a request for information made by the Office's Electronic Information Center for pictures and descriptions of trunk-mounted low frequency speakers before 1992. Examiner does not dispute that this request was made. To the best of examiner's knowledge no information relevant to this application was received in response to this request. Regarding appellant's comments concerning reopening of prosecution after the BPAI decision of 18 March 2002, as indicated in the non-final Office action mailed on 19 July 2002 this reopening was done with the approval of the Technology Center director and, therefore, was proper under 37 CFR 1.198.

Appellant's repeated statements regarding requests for examiner "to quote verbatim the language in each reference regarded as corresponding to each limitation in each of these rejected claims, and quote verbatim the language in the references regarded as suggesting the desirability of combining what is there disclosed to meet the terms of these claims" ignores the principal that drawings and pictures can anticipate claims if they clearly show the structure which is claimed. *In re Mraz*, 455 F.2d 1069, 173 USPQ 25 (CCPA 1972). The disclosures relied upon are largely pictorial and, given the nature of the claims, it is entirely appropriate to rely on these disclosures. Further, motivation can be found in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

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Copies of the court or Board decision(s) identified in the Related Appeals and Interferences section of this examiner's answer are provided in the appeal brief.

(11) Related Proceeding(s) Appendix

Copies of the court or Board decision(s) identified in the Related Appeals and Interferences section of this examiner's answer are provided in the appeal brief.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Daniel Swerdlow

Conferees:




SINH TRAN
SUPERVISORY PATENT EXAMINER

Sinh N. Tran



Andrew R. Graham



CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600